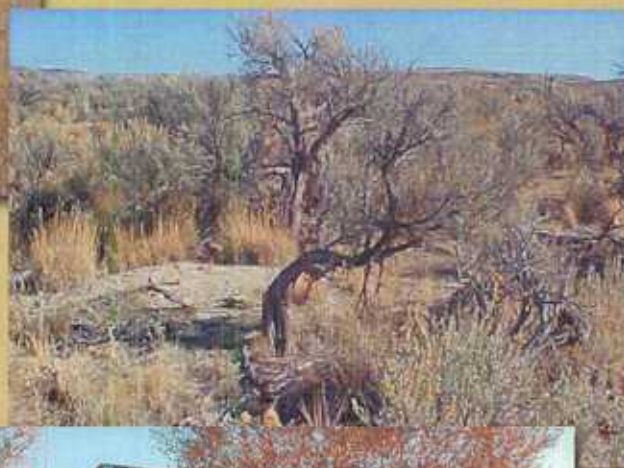
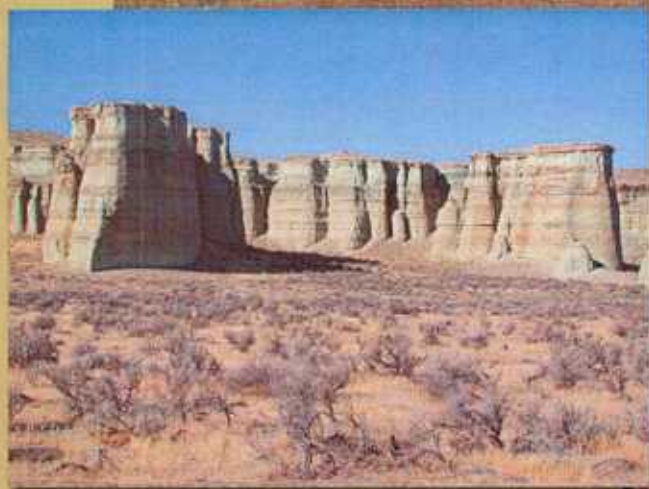


# **WILDLAND-URBAN INTERFACE COMMUNITIES-AT-RISK PROGRAM**

**Final Mitigation Recommendations  
BLM Vale District  
Jordan Valley, Arock, Rome Assessment Area**



**Order No.: NAD010208  
Contract No.: GS-10F-0085J  
April 2002**



**FINAL  
WILDLAND-URBAN INTERFACE, COMMUNITIES-AT-RISK  
MITIGATION RECOMMENDATIONS**

**VALE DISTRICT  
JORDAN VALLEY, AROCK, ROME ASSESSMENT AREA**

**Prepared for:**

**U.S. Department of Interior  
Bureau of Land Management  
Vale District  
100 Oregon Street  
Vale, Oregon 97918  
(541) 473-3144**

**Prepared by:**

**Dynamac Corporation  
20440 Century Boulevard  
Suite 100  
Germantown, Maryland 20874**

**Order Number: NAD010208  
Contract No.: GS-10F-0085J  
Date Prepared: April 2002**

## **DISCLAIMER**

This Report was prepared for the Department of the Interior, Bureau of Land Management, Vale District under Order Number NAD010208, Contract No. GS-10F-0085J. This is not a decision document and reflects no commitment without appropriate planning, analysis, and funding. This Report is intended solely as guidance by which contractor support services will be provided to BLM. Any reports or analyses prepared by the contractor pursuant to this Report do not constitute or reflect legal opinions or analyses, or any position or opinion attributable to BLM. Any such reports or analyses are not intended, nor can they be relied upon, to create any rights, substantive or procedural, enforceable by any party in litigation with the United States. The BLM reserves the right to act at variance with any such reports or analyses, and to change them at any time without public notice.

## TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY .....	1
2.0	GOALS AND OBJECTIVES .....	2
3.0	BACKGROUND .....	2
4.0	EXISTING SITUATION.....	3
5.0	PUBLIC COMMENT SUMMARY .....	8
6.0	NEED FOR ACTION .....	9
7.0	METHODOLOGY .....	9
8.0	PROPOSED PROJECTS .....	11
8.1	Local Fire Department Assistance .....	11
8.2	Establishment of Rural Fire Department.....	12
8.3	Mutual Aid Agreement.....	13
8.4	Community Education and Outreach Recommendations .....	13
8.5	Providing Wildland Firefighting Training .....	14
8.6	Water Storage Tank.....	15
9.0	BIBLIOGRAPHY .....	17

## ACRONYM LIST

amsl	above mean sea level
BLM	Bureau of Land Management
FEMA	Federal Emergency Management Agency
GPS	Global Positioning System
JVAR	Jordan Valley, Arock, Rome Assessment Area
WRCC	Western Regional Climate Center

## APPENDIX A

### Maps

Map 1	Jordan Valley Arock Rome (JVAR) Assessment Area and Fuel Survey Points
Map 2	Summary of Areas of Highest Risk for Fuels and Fire Suppression
Map 3	Recommended Mitigation Actions in the JVAR Assessment Area

## APPENDIX B

### Action Items Required to form a Rangeland Fire Protection Association

## **1.0 EXECUTIVE SUMMARY**

During the 2000 fire season more than 6.8 million acres of public and private lands were burned by wildfire, resulting in loss of property, damage to resources, and disruption of community services. Many of these fires occurred in wildland-urban interface areas and exceeded fire suppression capabilities. In response, the President of the United States directed the Secretaries of the Departments of Agriculture and the Interior to increase federal investments in projects to reduce the risk of wildfire in the wildland-urban interface. The Bureau of Land Management (BLM), Vale District is currently in the process of forming partnerships with local governments to plan fuels reduction treatments and other mitigation measures targeted at the wildland-urban interface in the vicinity of public lands. These partnerships are indicative of a shared responsibility to reduce wildland fire risks to communities.

The wildland-urban interface occurs where manmade structures meet or intermix with wildland vegetation. In certain situations, specific actions such as fuels reduction around communities, forest and rangeland restoration, infrastructure improvements, and public education and outreach may reduce the risk of catastrophic fire in the wildland-urban interface. To this end, the Vale District BLM implemented the Communities-at-Risk, Wildland-Urban Interface Program. The program seeks to reduce the hazard of wildland fires to communities through public outreach, the reduction or prevention of fuel build-up, and increasing the fire protection capabilities of communities. The communities of Jordan Valley, Arock and Rome were selected to assess the hazard of wildland fire and to identify specific actions that may reduce the risk of loss and disruption of services from wildland fire.

Dynamac Corporation was contracted to support the BLM in their assessment of wildfire risk to the Jordan Valley, Arock and Rome communities in the wildland-urban interface. Dynamac scientists conducted fuel surveys by categorizing the vegetation, slope, and aspect of the land in the Jordan Valley-Arock-Rome (hereafter JVAR) assessment area. The risk of wildland fire to homes, structures, and cultural resources on private land was also evaluated according to building materials, the presence of survivable space, road access, and the response time of the local fire department. Dynamac assessed the adequacy of the community's service infrastructure (including roads, water supplies, and fire fighting equipment) by systematic observation, and by interviewing community officials and fire prevention personnel. A community open house was held to disseminate information about the Communities-at-Risk, Wildland-Urban Interface Program to citizens, to afford them the opportunity to identify resources that are of value to the community, and to have them identify actions that may reduce the risk of wildland fire. The

information gathered from the fuel surveys, structural surveys, interviews, infrastructure assessments, and community profile was integrated into two reports: a hazard assessment report and mitigation recommendations. The following action items were identified to reduce the wildfire threat in the JVAR assessment area.

- Provide assistance to the Jordan Valley Fire Department in obtaining a pumper truck;
- Establish a rural Fire Department in the Rome and Arock area;
- Develop and maintain a water-storage tank near Arock to improve the availability of water resources and to reduce the time needed to refill pumper trucks;
- Wildland fire training courses taught to Jordan Valley fire department by NFPA- or NWCG certified instructors for volunteer fire fighters;
- Develop an ongoing education and outreach program throughout the assessment area to encourage firewise practices; and
- Establish a mutual aid agreement with the Jordan Valley Fire Department.

## **2.0 GOALS AND OBJECTIVES**

The goals of the JVAR wildfire hazard assessment and mitigation plan are to evaluate the hazards of wildland fire within the assessment area and then identify specific actions that could reduce the risks. The objectives are to decrease the chances of wildfire spreading from public lands onto private lands, while correspondingly decreasing the risk of wildfire spreading from private lands onto public lands.

## **3.0 BACKGROUND**

Wildland fire is an integral component of many forest and rangeland ecosystems. In the conterminous United States before European settlement, an estimated 145 million acres were annually scorched by wildfire. In comparison, only about 14 million acres are currently burned annually due to increased agriculture, urbanization, habitat fragmentation, and fire suppression programs. This change from the historical fire regime to the present day has caused a shift in the native vegetation composition and structure of fire-prone ecosystems such as some forests and rangelands resulting in a dangerously high accumulation of fuels. As a result, when wildland fires do occur, they may burn larger and hotter than those in the past and pose an increased risk to human welfare and ecological integrity.

The hazard of wildland fires is compounded by the increasing occurrence of human structures and activities in fire-prone ecosystems. The wildland-urban interface occurs where manmade structures meet or intermix with wildland vegetation. In certain situations, specific actions such as fuels reduction around communities, forest and rangeland restoration, infrastructure improvements, and public outreach may reduce the risk of losses to catastrophic fire in the wildland-urban interface. The Vale District BLM implemented the Communities-at-Risk, Wildland-Urban Interface Program to determine what these specific actions might be, and where they are needed. The program seeks to reduce the hazard of wildland fires to communities through public education and outreach, the reduction or prevention of fuel buildup, and increasing the fire protection capabilities of communities. The communities of Jordan Valley, Arock and Rome were selected to assess the threat of wildland fire and to identify specific actions that may reduce the risk of loss.

The BLM Vale District intends to use the mitigation measures identified in this document as a guide and prioritization tool in implementing the Communities-at-Risk Program. The District is committed to working with any partners (private, local government, state, and federal) in order to accomplish mutual goals and objectives identified in the recommendations. The recommendations that the District chooses to implement will go through the NEPA process and will be accomplished as funding, policy and regulations permit.

#### **4.0 EXISTING SITUATION**

Jordan Valley, Arock and Rome are situated in the Jordan Creek Valley in southeastern Oregon. The Assessment Area is located in Malheur County approximately 90 miles south of Vale, Oregon and 55 miles southeast of Boise, Idaho. The assessment area included the towns of Jordan Valley, Arock, Rome, Danner, and Burns Junction, and consisted of portions of township 27S range 45E; T27S R46E; T28S R41E; T28S R42E; T28S R43E; T28S R44E; T28S R45E; T28S R46E; T29S R40E; T29S R41E; T29S R42E; T29S R43E; T29S R44E; T29S R45E; T29S R46E; T30S R40E; T30S R41E; T30S R42E; T30S R43E; T30S R44E; T30S R45E; T30S R46E; T31S R39E; T31S R40E; T31S R41E; T31S R42E; T31S R43E; T31S R44E; T31S R45E; T31S R46E; T32S R39E; T32S R40E; T32S R41E; T32S R42E; T32S R43E; T32S R44E; T32S R45E; T32S R46E; T33S R39E; T33S R40E; T33S R41E; T33S R42E; T33S R43E; T34S R41E and T34S R42E. Within the assessment area are ranches, residential areas, and historic structures and sites.

The topography of the assessment area is hilly with some areas of steeper cliffs and rock formations. The city of Jordan Valley is at approximately 4,400 feet above mean sea level

(amsl) and the elevation of the assessment area ranges from 3,400 feet to 5,500 feet amsl. There are concentrated residential areas in Jordan Valley and Arock that are surrounded by ranches. The town of Rome is a cluster of buildings located near the Rome Station restaurant. The approximate population of the assessment area is 700. The predominant vegetation throughout the assessment area is sagebrush and grasses (e.g., cheatgrass and bunchgrass). Large bushes and trees are only found near a source of water (e.g., spring) or near residential areas. The Owhyee River Canyon traverses the assessment area and there are other geologically significant features of the assessment area, including Jordan Crater and the Rome Cliffs.

Agricultural production is primarily cattle ranching; to a much lesser degree grain and hay production and sheep ranching occur within the assessment area. There is open rangeland throughout the entire assessment area. The rangeland is important for livestock grazing, wildlife habitat, and recreation.

The only major paved road throughout the assessment area is Highway 95. There are paved streets in the city of Jordan Valley. Four-wheel drive and all-terrain vehicle roads are extensive throughout the assessment area, aiding in accessibility. However, access to public land can be difficult since most of the private land surrounding public land is gated and locked.

The population and housing in the assessment area is very stable. The community centers and their immediate surrounding areas are where dense residential housing is located. Outside the city limits or community centers are individual homes and ranches.

The climate of the assessment area is characterized by warm, dry summers with maximum average temperatures reaching 92° Fahrenheit (F) in July, and an average daily summertime low of 45-51°F. Winter months are typically cool, with average daily temperatures from November to March ranging from 18 to 55°F. Precipitation is typically low with an average annual precipitation of 8.21 inches. July has the lowest average precipitation with 0.37 inches and May has the most with 1.18 inches. Between November and March precipitation arrives as snowfall and from April through June as rain (WRCC, 2001).

The Hazard Assessment Report for the JVAR assessment area presents and summarizes data for fuel and terrain conditions; those data can be summarized as follows:



- **Slope:**

Class A - 57% of the points were flat land (less than 10% slope).

Class B - 38% of the points were moderate slope (10%-30% slope).

Class C - 5% of the points were steep slopes (greater than 30% slope).

- **Aspect:**

Class A - 28% of the points faced north.

Class B - 40% of the points faced east.

Class C - 32 % of the points faced south and west.

- **Elevation:**

Class A - 0% of the points were at elevations greater than 5,000 feet amsl.

Class B - 93% of the points were at elevations between 3,500 and 5,500 feet amsl.

Class C - 7% of the points were at elevations lower than 3,500 feet.

- **Fuel Type:**

Class A - 37% of the points had small, light fuels (grass, weeds, shrubs).

Class B - 61% of the points had medium fuels (brush, medium shrubs, small trees).

Class C - 2% of the points had heavy fuels (timber, woodland, large brush or heavy planting of ornamentals).

- **Fuel Density:**

Class A - 18% of the points had a non-continuous fuel bed (less than 30% cover).

Class B - 55% of the points had a broken moderate fuel bed (31 to 60% cover).

Class C - 27% of the points had a continuous fuel bed (greater than 60% cover).

- **Fuel Bed Depth:**

Class A - 20% of the points had a low fuel bed depth (less than 1 foot).

Class B - 77% of the points had a moderate fuel bed depth (1-3 feet).

Class C - 3% of the points had a high fuel bed depth (greater than 3 feet).

The second component of the Hazard Assessment Report is the characterization of structures in the assessment area for structure density, building materials, proximity to fuels, presence of survivable space, and roads/accessibility. Results of the structure survey can be summarized as follows:

- **Structure Density (percentage based on all sections surveyed):**

Class A - 1.0% of the sections had at least one structure per five acres.

Class B - 0.5% of the sections had one structure per 5-10 acres.

Class C - 98.5% of the sections had less than one structure per 10 acres.

The remaining percentages (excluding response times) were calculated based on only the 80 sections that contained structures.

- **Proximity to Structures:**

Class A - 33% of the sections had flammable wildland fuels greater than 100 feet from the structures.

Class B - 62% of the sections had wildland fuels 40 to 100 feet away.

Class C - 5% of the sections had fuels less than 40 feet from the structures.

- **Predominant Building Materials:**

Class A - 57% of the sections had a majority of homes constructed with fire-resistant roofs and/or siding.

Class B - 34% of the sections had 10-50% of the homes built with fire resistant roofs and/or siding.

Class C - 9% of the sections had less than 10% of the homes built with resistant roofs and/or siding.

- **Survivable Space:**

Class A - 79% of the sections had a majority of homes with improved survivable space around the homes (greater than 50%).

Class B - 16% of the sections had 10-50% of homes with improved survivable space.

Class C - 5% of the sections had less than 10% of homes with improved survivable space.

- **Roads:**

Class A - 11% of the sections had wide looped roads that were maintained, paved or solid, and surfaced with shoulders.

Class B - 81% of the sections had maintained, two-lane roads, with no shoulders.

Class C - 8% of the sections had narrow, steep, rutted roads.

- **Response Time (percentage based on all sections surveyed):**

Class A - 17% of the sections had a response time of less than 20 minutes.

Class B - 18% of the sections had a response time of 20 to 40 minutes.

Class C - 65% of the sections had a response time of greater than 40 minutes.

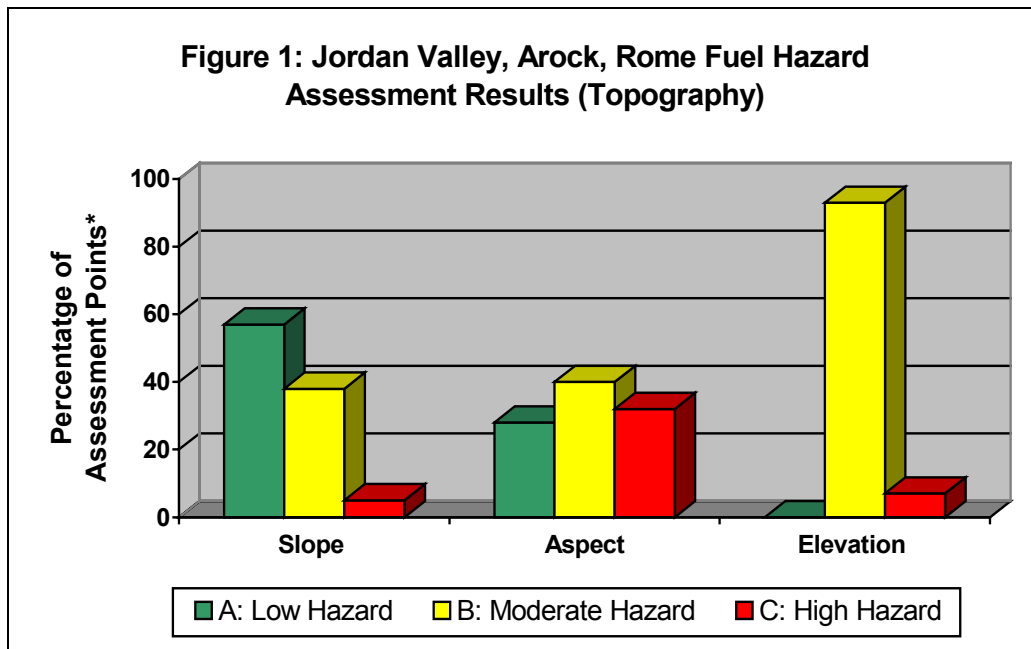
- **Access:**

Class A - 6% of the sections had multiple entrances and exits that were suitable for trucks with turnarounds.

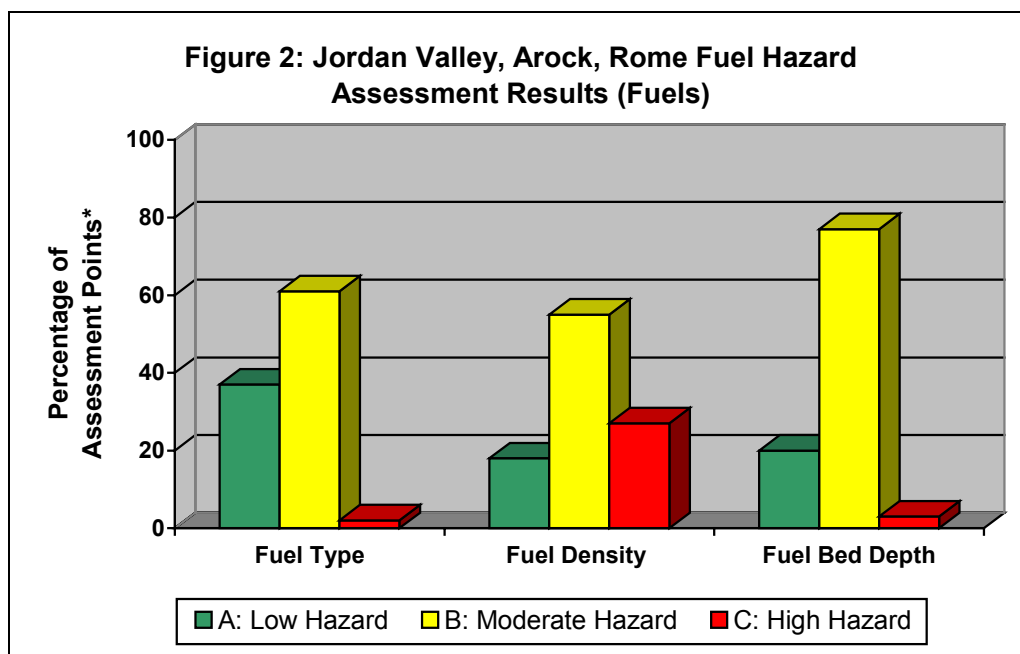
Class B - 81% of the sections had limited access routes.

Class C - 13% of the sections had poor access routes.

The data from the fuels hazard assessment are also graphically depicted in **Figures 1 and 2**. The charts depict the percentage of assessment points, based on a total of 80 points surveyed, that received a high, moderate, or low hazard ranking.

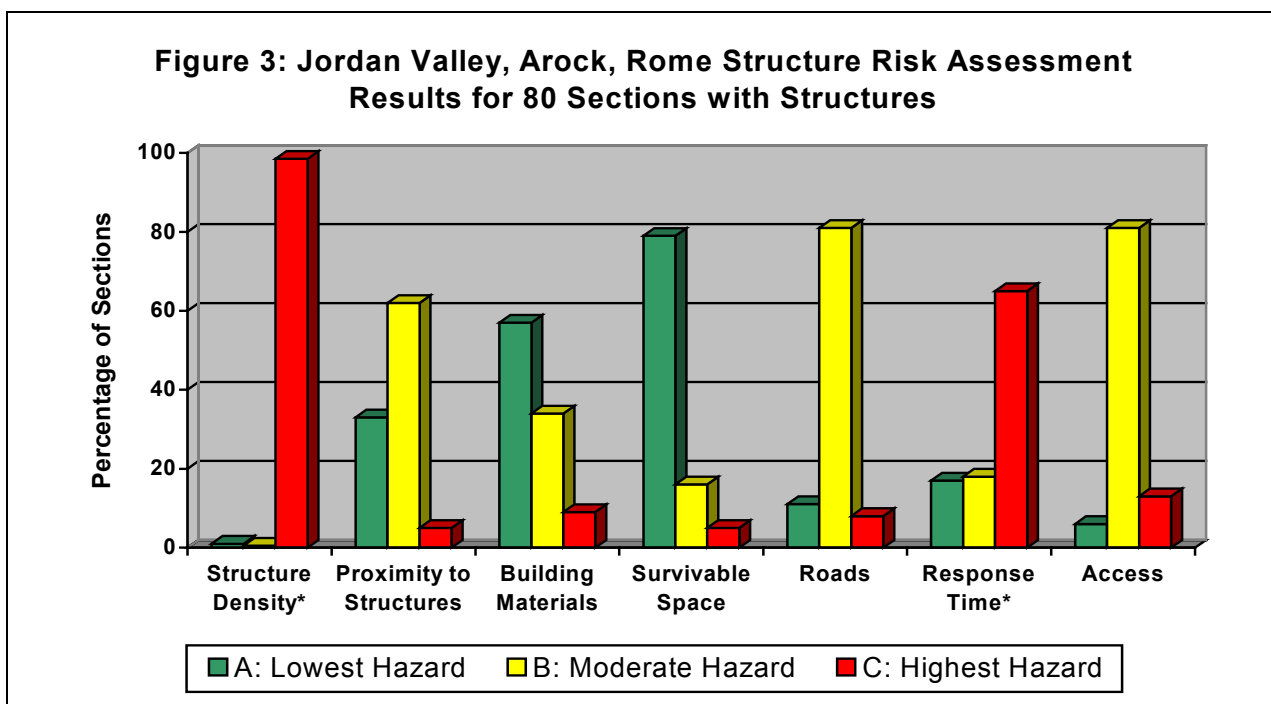


\* Percentages for Figure 1 based on 106 fuel assessment points surveyed.



\* Percentages for Figure 2 based on 106 fuel assessment points surveyed.

The percentages of assessment points for hazards to structures are graphically depicted in **Figure 3**. It should be noted that, with the exception of structure density and response times, these percentages are based on the 80 sections *with* structures in the assessment area and not on all 271 sections surveyed (191 of which had no structures.) The areas of greatest risk in terms of fuels and fire suppression efforts (low structure density) are depicted on **Map 2** in the Appendix.



\* Percentages for Figure 3 based on 271 sections with structures.

## 5.0 PUBLIC COMMENT SUMMARY

Through discussions with community leaders, fire officials, and residents of Jordan Valley, Arock, Rome, and the surrounding wildland-urban interface lands, the following actions were suggested to improve fire preparedness and prevention measures along the wildland-urban interface. All of these have been developed into recommendations (See Section 8.0, Proposed Projects) for lessening the risk posed by fire.

- A new pumper truck for the Jordan Valley Fire Department;
- Additional communication equipment for the Jordan Valley Fire Department;
- Establishing a Rural Fire Department in the Rome-Arock area;
- Increased ability to control wildland fires by pre-positioning a water source near Arock;
- Wildland fire training courses provided to Jordan Valley Fire Department;

- Area-wide adoption of firewise practices in residential building and landscaping; and
- Mutual aid agreement between the Jordan Valley Fire Department and BLM.

## **6.0 NEED FOR ACTION**

Wildfire frequency in the JVAR assessment area is not uncommon, and results predominantly from natural causes and also from human origins. At risk are dwellings and other structures on private land near the wildland-urban interface and the open rangeland. To reduce the risks of wildfire in the assessment area both general and specific actions are needed. In general, the residents and their public agencies should support activities that promote safety for dwellings, structures and rangeland at risk.

## **7.0 METHODOLOGY**

The mitigation actions proposed herein for the Jordan Valley, Arock and Rome assessment area are based on information acquired from fuel and structure surveys, a public meeting, interviews of community officials, and surveys filled out and submitted by residents of Jordan Valley, Arock and Rome. The majority of information presented in this report was gathered between November 5 and November 14, 2001. A Draft Hazard Assessment Report has been completed for the area and is available at the Vale District Office.

Dynamac characterized land and fuels at 106 points on public land within a 15-mile radius of Jordan Valley, Arock and Rome (excluding land within Idaho), concentrating on sections of land near inhabited areas. As not all sections of public land were accessible, Dynamac endeavored to choose fuel survey points that were representative of surrounding sections. The rating elements included slope, aspect, elevation, fuel type, fuel density, and fuel bed depth, and were assigned to a risk category of low, moderate, or high (See Hazard Assessment Report, Table 3, and Appendix B). At each survey point, the field crew recorded the location in UTM coordinates using a Trimble hand-held global positioning unit (GPS), and photographed the surrounding area in the four cardinal directions. A wildland fuels fire hazard assessment form (Form 1) was completed which rated the characteristics of the land features and fuel sources.

Dynamac staff also collected information on the flammability and defensibility of structures on private land from over 271 sections located within one mile of public lands, within the assessment area. The structural hazard assessment rated the structures based on the resistance of building materials to fire, and the distance of flammable fuels to the structures located within a

section. The rating elements included structure density, proximity of flammable fuels to the structures, building materials, survivable space, and types of roads, response times, and accessibility. Each element was assigned a rating of low, medium, or high hazard category (See Hazard Assessment Report, Table 4, and Appendix C).

A public open house was convened on November 13, 2001 at the Jordan Valley Lions Club, from 12:30 - 3:30 p.m. The community was invited to attend through announcements posted in public places such as the post office, restaurants and stores. A meeting announcement was sent to 362 mailing addresses in the JVAR assessment area. Dynamac and BLM staff attended the public meeting to hand out firewise brochures, obtain information from the community on hazardous fire situations and desired conditions, and to be an informational resource to those attending the meeting. Residents attending the meeting were asked to fill out a survey form regarding their perceptions and concerns about wildland fire in their communities. Several survey forms were also received from people that did not attend the meeting. (See Hazard Assessment Report, Appendix D.)

The Dynamac Community Relations Specialist conducted interviews with numerous local public officials and residents. Individuals or groups interviewed included the Jordan Valley mayor, members of the Jordan Valley Fire Department, and members of the ranching community (See Hazard Assessment Report, Appendix E).

A second public open house was held on March 20, 2002, at the same location in Jordan Valley. Publicity for this meeting included a direct mailing to 362 residences, and also mailing a letter and a factsheet about findings from the community assessment to 13 people who attended the first meeting and signed the mailing list, or were interviewed. Six people attended the second open house. Dynamac's team lead for the JVAR assessment area presented a short slide show of the fuel hazard and structure hazard assessments that had been conducted the previous November. Residents were encouraged to provide commentary on the meeting or the proposed mitigation recommendations for the area, and were given a week to do so. Dynamac received comments from an Oregon Department of Fish and Wildlife representative. These comments, as well as a summary of the March 20, 2002, meeting, have been included in the Hazard Assessment Report, Appendix F.

## 8.0 PROPOSED PROJECTS

The projects proposed are based on information obtained from the fuel and structure surveys, community meeting, and interviews. The following specific action items were identified to reduce the hazard of wildfire in the JVAR assessment area:

- Provide assistance to the Jordan Valley Fire Department in obtaining a pumper truck;
- Provide guidance to the communities in establishing a rural fire department and assist in identifying methods for obtaining equipment and training;
- Establish a mutual aid agreement with the Jordan Valley Fire Department;
- Develop an on-going education and outreach program throughout the assessment area to encourage firewise practices;
- Provide wildland fire training to the Jordan Valley Fire Department; and
- Develop and maintain water storage tanks.

### 8.1 Local Fire Department Assistance

**Purpose of Local Fire Department Assistance:** The ability of the Jordan Valley Fire Department to respond to wildland fires would be greatly enhanced by the addition of a 3,000-gallon pumper truck. Currently, the only piece of equipment the Jordan Valley Fire Department has to combat wildland fires is a 350-gallon water wagon. The pumper would enable the Jordan Valley Fire Department to meaningfully combat fires outside the city limits of Jordan Valley. The Fire Department applied for, but was not awarded, a Federal Emergency Management Agency (FEMA) grant to obtain a pumper truck. The Jordan Valley Fire Department has three hand-held radios. Additional hand-held radios would greatly enhance their ability to communicate and coordinate with other fire-fighting organizations (e.g., BLM Guard Station) thereby increasing their effectiveness against wildfires.

**Necessity for Assistance:** Currently, the Jordan Valley Fire Department cannot combat structure or wildland fires outside the city limits of Jordan Valley due to a lack of equipment. Having one pumper truck would enable the fire department to combat a fire outside the city limits. Of the three hand-held radios, one is in the truck that must stay within the city limits, another is at the fire station and there is a third radio that can be used as needed.

**Project Timing:** The Jordan Valley Fire Department should request BLM's assistance in obtaining a BLM surplus pumper truck and additional communications equipment by obtaining grant money as soon as possible.

## **8.2 Establishment of Rural Fire Department**

**Purpose of Establishment of Rural Fire Department:** The only established firefighting entities in the assessment area are the Jordan Valley Fire Department and the BLM Guard Station. The Jordan Valley Fire Department's fire truck is restricted to the city limits of Jordan Valley (approximately 1.25 square miles). The BLM Guard Station (seasonally operational) combats wildfires that threaten public land. Guard Station personnel are not trained to combat structural fires by federal policy and they rarely combat wildfires that only threaten private property. Therefore, a large percentage of the assessment area is without any formal fire protection. By establishing a rural fire department, equipment and training can be obtained, greatly increasing the protection of people, structures, and rangeland. During the community meeting, a community resident of Rome stated that another community member had identified and volunteered the old Rome Station location and building for a Rural Fire Department that could serve the Rome and Arock communities.

**Necessity for Assistance:** By establishing a rural fire department, equipment and training can be obtained greatly increasing the protection of people, structures and rangeland. BLM's role in this process can be as an advisor on the process of establishing a rural fire department and as a source of information on obtaining equipment and training.

**Project Timing:** There was strong support for this project from members of the community. The community should contact the Oregon Fire Marshall to determine the state requirements for recognition as a fire department. **Appendix B** of this report provides a list of action items required to form a rangeland fire protection association. During this process the community should request information and assistance from BLM. Once the Oregon Fire Marshall recognizes the fire department, it can work with BLM in obtaining grant money and submitting grant proposals for federal assistance funds. The overall timing of this project is dependent on the actions of the community members, but should occur as soon as possible.



### 8.3 Mutual Aid Agreement

**Purpose of Mutual Aid Agreement:** Misconceptions of the roles and responsibilities of the BLM Guard Station staff are common among residents of the assessment area, especially with respect to structure fires, fires on private land and firefighting in general. These misunderstandings have resulted in unfavorable views of BLM by some members of the community. For example, while members of the Jordan Valley Fire Department understand that Guard Station personnel cannot combat a structure fire they question why Guard Station personnel cannot assist by providing water to their water wagon (assuming they have the equipment available). There are some areas where a common interest in protecting private structures and public and private land could be translated into a mutual aid agreement between BLM and the community. This would increase the wildfire firefighting capability in the area and would improve the public perception of BLM's commitment to the area. A mutual aid agreement would serve to delineate these areas, increase public awareness of BLM's role in combating wildfire, and mutually benefit private landowners, the Jordan Valley Fire Department and BLM by forming a basis for cooperation among all groups.

**Necessity for Assistance:** The process of establishing a mutual aid agreement will make clear to all concerned the limits on roles and responsibilities which have caused unfavorable views of BLM. In addition, a mutual aid agreement has the potential to increase the area's firefighting capability by forming a basis for cooperation among parties, and improve communication and coordination between BLM, Jordan Valley Fire Department, and private landowners.

**Project Timing:** The Jordan Valley Fire Department should initiate the establishment of a mutual aid agreement with the BLM as soon as possible. If a rural fire department is created in the Jordan Valley area (see Section 8.2, above), this department should also be included in the mutual aid agreement.

### 8.4 Community Education and Outreach Recommendations

**Purpose of Public Education and Outreach:** The purpose of the community-wide education program is to 1) educate the public of the dangers of wildfire in the area, 2) urge residents to take responsibility in reducing the risk of wildfire and to create defensible space around their residence, 3) publicize the BLM dispatch phone number for reporting wildfires in order to reduce response times, and 4) increase awareness of the natural role of fire in forest and rangeland ecosystems, and the benefits of occasionally managing natural wildland fires to achieve

ecological benefits, while maintaining firefighter and public safety as the top priority. The public education and outreach program could be co-sponsored by the BLM and Jordan Valley Fire Department along with the Cattlemen's Association.

**Outreach Occurrence:** An annual "Firewise Clean-Up Day" is one tool that is recommended to encourage residents to create defensible/survivable space around their residence. In conjunction with the Firewise Clean-Up Day, specific demonstration projects may be designed and utilized to educate residents about longer-term investments they could make to increase fire safety. The clean-up day would occur in conjunction with public demonstrations, education programs, and speakers on wildfire and firewise practices. Members of the community thought conducting outreach activities in conjunction with a school event would reach a large part of the assessment area population. Working through the Cattlemen's Association to reach the large ranching population was also suggested.

**Outreach Timing:** Within the general guidelines set forth above, the annual "Firewise Clean-Up Day", education program, and public demonstrations would be most effective in the spring, to remind people to prepare their properties for the coming fire season. However, to take advantage of the school schedule, the fall would also provide opportunities for educational outreach, such as during a football game.

**Outreach Necessity:** Citizen involvement in wildfire mitigation in and around communities is a necessary element for success. Public education and outreach is an effective means of engaging the public in the process of reducing risks to a community. Such education and outreach has been shown to motivate homeowners to take measures around their individual property, thereby contributing to the reduction of wildfire hazards in a community. Further, a community education and outreach program will help identify problems and solutions for both public and private landowners, and offer opportunities for partnerships and agreements. Implementation of the program, and appropriate action by homeowners, will reduce fire risk to structures in the assessment area.

## **8.5 Providing Wildland Firefighting Training**

**Purpose of Providing Wildland Fire Training:** The Jordan Valley Fire Department is staffed entirely by 10 volunteers, with 7 or 8 active participants. Training is mostly through videos and trainers coming to Jordan Valley, and is focused on structural fires. However, none of the volunteers have attended a fire training school, and none are certified in NWCG wildland

firefighting. Members of the Jordan Valley Fire department requested that a NWCG-certified instructor come to Jordan Valley to teach the wildfire-fighting courses. In addition, training offered at the Guard Stations could be extended to the volunteer firefighters.

**Necessity for the Project:** Such training would vastly improve the wildfire fire-fighting capabilities of the Jordan Valley Fire Department, thereby potentially reducing the occurrence of wildfire and reducing the time to extinguish them.

**Project Timing:** Because most of the volunteer firefighters have full-time jobs, the timing of the training needs to be coordinated to ensure a maximum turnout. The winter, when fire season is slow, would be a good time to teach the wildfire-fighting courses. In addition, when training is offered at the Guard Stations during the fire season, BLM could invite the volunteer firefighters to participate.

## **8.6 Water Storage Tank**

**Purpose of Construction of a Water Storage Tank:** There is no water storage capability in the assessment area. As discussed above, there is a long response time for fires in the Arock and Rome area, and the Jordan Valley Fire Department has only a 350-gallon water wagon to supply water for remote fire-fighting. To facilitate fire-fighting efforts, BLM, the Jordan Valley Fire Department, and the Jordan Valley Irrigation District could coordinate the establishment of the water storage tank. The proposed location, identified by a member of the Jordan Valley Fire Department, is next to the irrigation ditch near Arock (shown on **Map 3**). The water storage tank should be about 10,000 gallons in size and properly equipped to fill a pumper truck. The proposed location was suggested because it serves an area that has no formal firefighting capability and there is a ready source of water. This location was also chosen because when the fire season is over the water could then be used for agricultural purposes.

**Necessity of Assistance:** The average response time for the Arock-Rome area is greater than 30 minutes. When the Jordan Valley Fire Department does respond it is with a 350-gallon water wagon. Having a consistent water supply available during the fire season will enable quicker response and enable a sustained response.

**Project Timing:** This project should be initiated after Jordan Valley and the proposed new rural fire department have pumper and tanker trucks that can be refilled. However, it may require lengthy negotiations to come to agreement on the tank location and to address stakeholder's concerns (e.g., water board).

## 9.0 BIBLIOGRAPHY

Anderson, H.D. 1982. Aids to determining fuel models for estimating fire behavior. General Technical Report INT-122, USDA Forest Service, Intermountain Forest and Range Experiment Station, Ogden, UT.

Bureau of Indian Affairs, Bureau of Land Management, National Park Service, Oregon Department of Forestry, U.S. Fish and Wildlife Service, U.S. Forest Service, Washington Department of Natural Resources, 2001. Increasing Fuels Treatment on Federal & Non-Federal Lands in the Pacific Northwest. Report to the Pacific Northwest Wildfire Coordinating Group (PNWCG).

Burgan, R.E. 1988. 1988 Revisions to the 1978 National Fire-Danger Rating System. USDA Forest Service Research Paper SE-273.

Gray, Gerry, May 29, 2001. "A Community-Based Approach to Addressing Wildfire."

Freemuth, J.C. 2000. Conference report: The fires next time. Andrus Center for Public Policy, Presented December 7, 2000, Boise State University, Boise, ID.

Interagency Fire Education Initiative, Resource Management Education Unit, 2001, <http://fire.nifc.nps.gov/fire/ecology/docs/ecplinit.html>.

NACCHO, March 2000. Partnerships for Environmental Health Education, Performing a Community Needs Assessment at Hazardous Waste Sites.

National Wildfire Coordinating Group, March 1996. Wildfire Prevention--Conducting School Programs Guide.

National Wildfire Coordinating Group, March 1998. Wildfire prevention strategies. PMS 455 or NFES 1572, National Interagency Fire Center, BLM National Fire & Aviation Training Support Group, Boise, ID.

National Wildfire Coordinating Group, 1991. Inspecting fire prone property P-110: Instructors Guide. NFES 2190, National Interagency Fire Center, BLM National Fire & Aviation Training Support Group, Boise, ID.

National Wildfire Coordinating Group, October 1999. Establishing Fire Prevention Education Cooperative Programs and Partnerships.

National Wildfire Coordinating Group, March 1999. Fire Communication and Education.

National Wildfire Coordinating Group, March 1999. Fire Education Exhibits and Displays.

## **BIBLIOGRAPHY (continued)**

National Wildfire Coordinating Group, April 2001. Publications Catalog.

National Wildland/Urban Interface Fire Protection Initiative, undated. Fire behavior in the wildland-urban interface. National Fire Protection Association, Quincy, MA.

National Wildland-Urban Interface Fire Protection Program, undated. Developing a Cooperative Approach to Wildfire Protection.

Video: Firewise Landscaping, Part 1-Overview.

Video: Firewise Landscaping, Part 2-Design and Installation.

Video: Firewise Landscaping, Part 3-Maintenance.

Video: Wildfire Control--An Introduction for Rural and Volunteer Fire Departments.

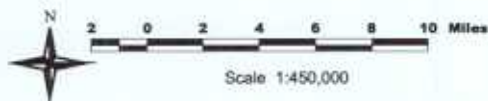
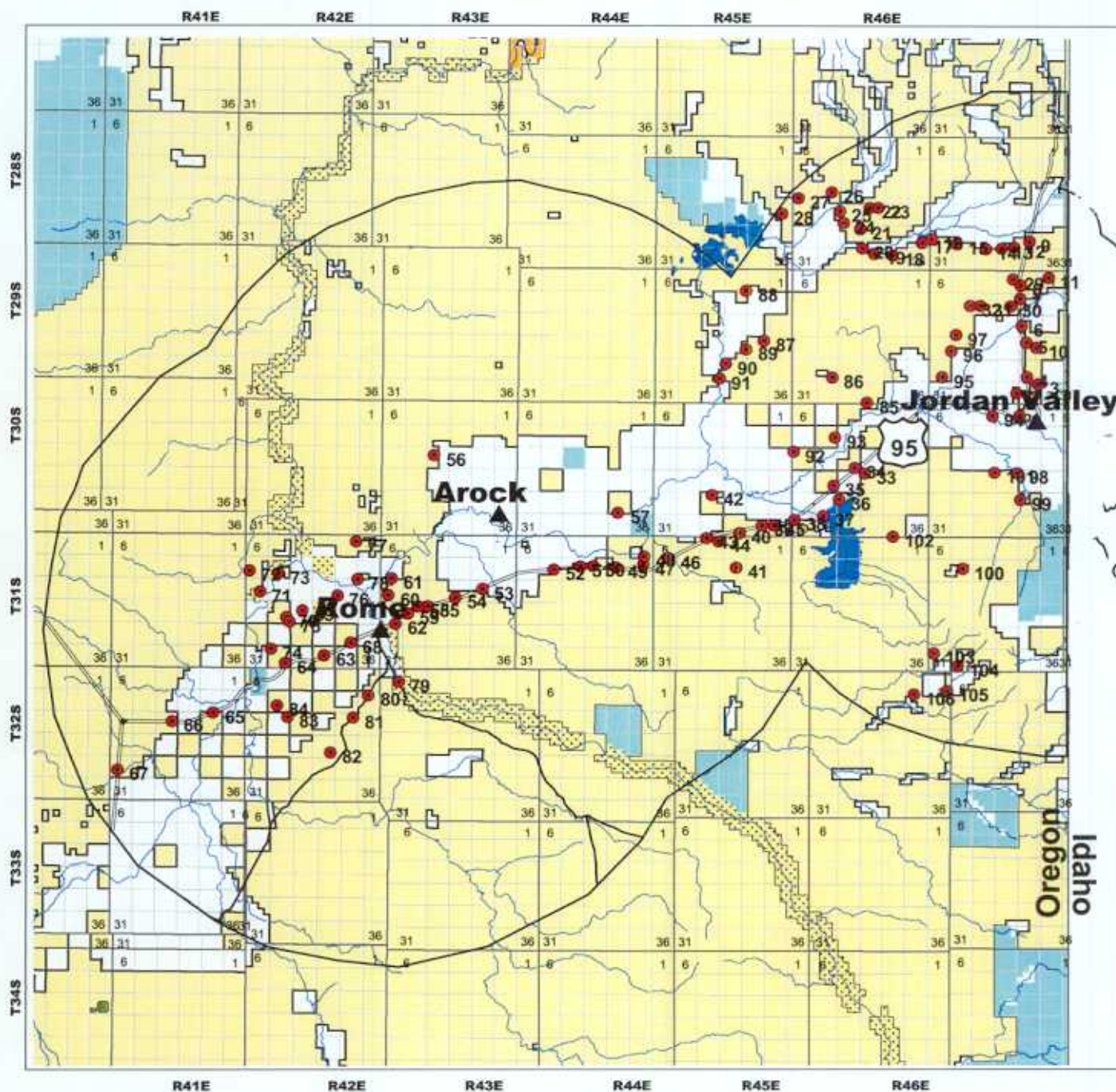
Video: The Meeting: Fire Protection Planning in the Wildland/Urban Interface (1991).

Western Regional Climate Center (WRCC 2001): Western U.S. Climate History Summaries.  
<http://www.wrcc.dri.edu/climsum.html>

# Appendix A

## Maps

Map 1: Jordan Valley, Arock, Rome (JVAR), Assessment Area and Fuel Survey Points



No warranty is made by the Bureau of Land management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



**DYNAMAC**  
CORPORATION

Map created by *Environmental Services* April 2002

Ownership:

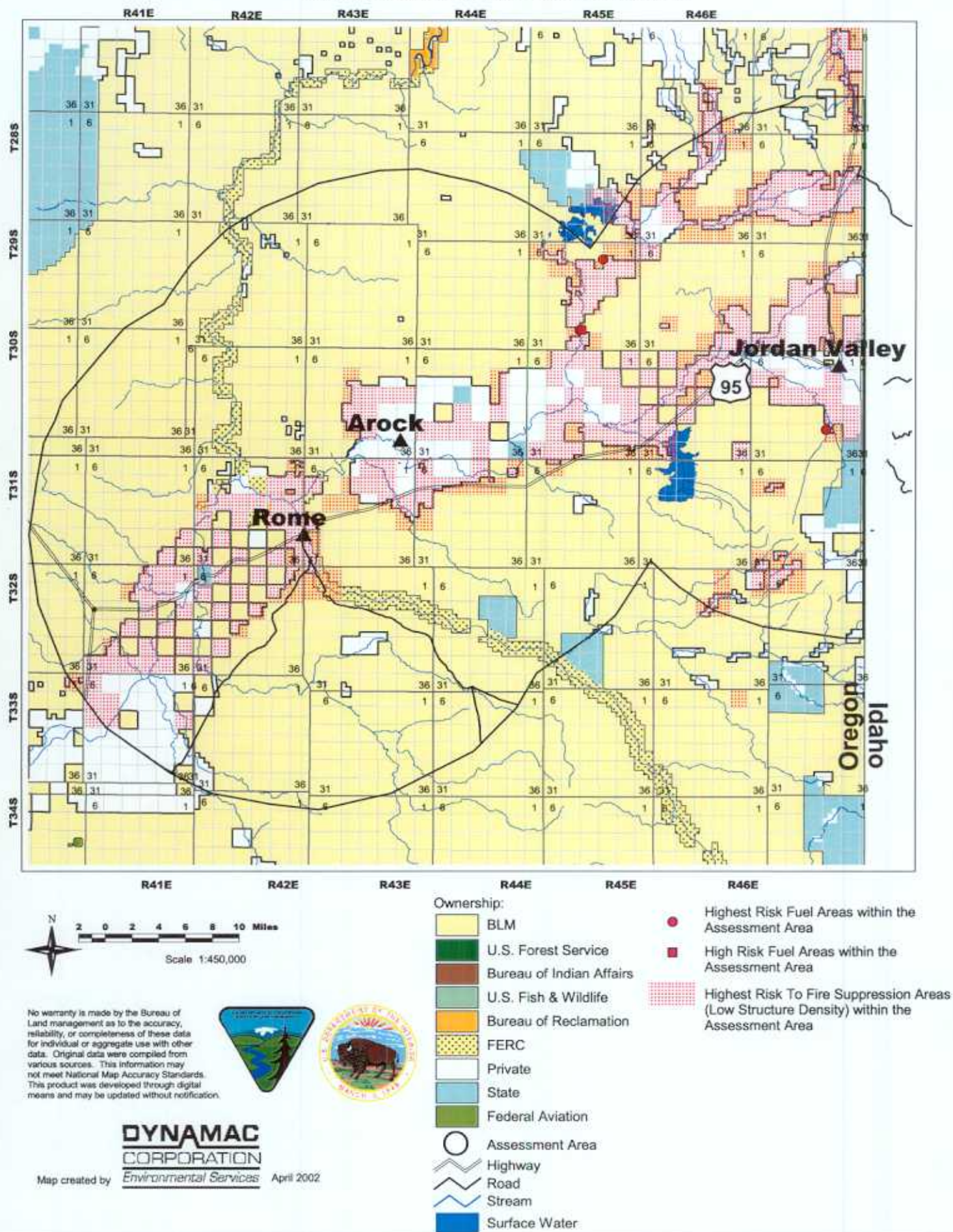
- BLM
- U.S. Forest Service
- Bureau of Indian Affairs
- U.S. Fish & Wildlife
- Bureau of Reclamation
- FERC
- Private
- State
- Federal Aviation

Actual Assessment Point

- Assessment Area
- Highway
- Road
- Stream
- Surface Water

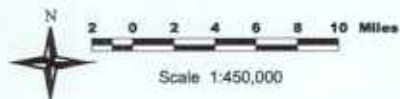
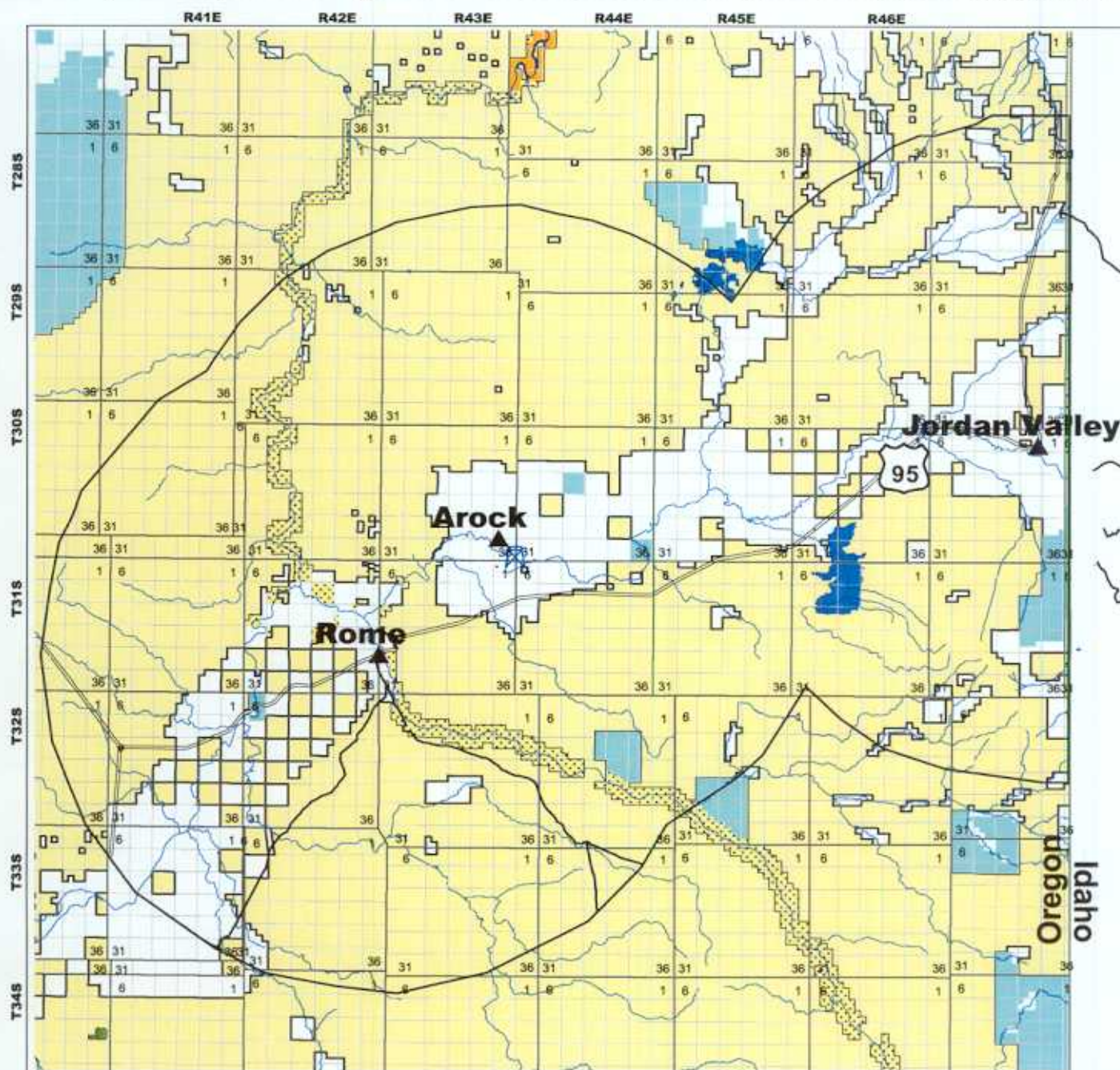


Map 2: Highest Risk Areas for Fuel and Fire Suppression within the JVAR Assessment Area





# Map 3: Proposed Mitigation Recommendations in the JVAR Assessment Area



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



**DYNAMAC**  
CORPORATION

Map created by *Environmental Services* April 2002

## Ownership:

- BLM
- U.S. Forest Service
- Bureau of Indian Affairs
- U.S. Fish & Wildlife
- Bureau of Reclamation
- FERC
- Private
- State
- Federal Aviation

- Assessment Area
- Highway
- Road
- Stream
- Surface Water

## Mitigation:

- Proposed Water Tank

## Appendix B

### Action Items Required to form a Rangeland Fire Protection Association

**ACTION ITEMS REQUIRED TO FORM A  
RANGELAND FIRE PROTECTION ASSOCIATION**  
ORS 477.320 & 477.325  
REVISED: 20 APR 00 FILE: RFPA FORMATION

Rangeland owners write letter to Board of Forestry requesting formation of a RFPA.  
Responsible party: Rangeland owners

Board of Forestry acknowledges rangeland owners request via letter and appoints a local Department of Forestry contact.  
Responsible party: Salem Fire Staff

Board of Forestry agenda item is requested regarding formation of requested RFPA.  
Responsible party: Salem Fire Staff

Board of Forestry orders the holding of a public hearing into the formation of a RFPA.  
Responsible party: Board of Forestry

Date, time and location of the public hearing are arranged.  
Responsible party: Salem Fire Staff, District and RFPA

Board of Forestry public hearing officer is appointed.  
Responsible party: Salem Fire Staff

Board of Forestry public hearing is scheduled; time and place are determined.  
Responsible party: Salem Fire Staff and District

News release about Board of Forestry public hearing is issued.  
Responsible party: Salem Fire Staff and Salem Public Affairs

Local notice is given about Board of Forestry public hearing.  
Responsible party: District

Board of Forestry public hearing is conducted.  
Responsible party: Salem Fire Staff

Board of Forestry public hearing records are filed.  
Responsible party: Salem Fire Staff

Board of Forestry agenda item is requested regarding formation of requested RFPA.  
Responsible party: Salem Fire Staff

Board of Forestry authorizes the formation of the requested RFPA.  
Responsible party: Board of Forestry

Bylaws of the RFPA are developed.  
Responsible party: Rangeland owners

Draft Memorandum of Understanding is developed to define the extent and type of protection to be conducted by the RFPA.



Responsible party: Salem Fire Staff, District and RFPA

Memorandum of Understanding, which defines the extent and type of protection to be conducted by the RFPA, is signed.

Responsible party: Salem Fire Staff, District and RFPA

Develop and sign a Mutual Aid Agreement between the District and the RFPA.

Responsible party: District and RFPA

Facilitate acquisition of FEPP equipment by RFPA.

Responsible party: District and RFPA

Facilitate acquisition of VFA federal grant funds by RFPA.

Responsible party: Salem Fire Staff

Develop first budget and forward to Board of Forestry.

Responsible party: RFPA

Board of Forestry agenda item is requested regarding RFPA budget.

Responsible party: Salem Fire Staff

Board of Forestry approves RFPA budget.

Responsible party: Board of Forestry